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**REMARKS**

Claims 1 and 3-23 are currently pending in the subject application and are presently under consideration. It is appreciated that claims 11-23 have been allowed. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

**I. Rejection of Claim 1 Under 35 U.S.C. §102(e)**

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by Wolf (US 6,385,751 B1). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Wolf does not teach or suggest each and every element of the subject claim.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1 recites a general-purpose direct memory access (DMA) controller employed to control a plurality of hardware resources. The hardware resources can be situated in a plurality of combinations and consist of a plurality of different types of such resources. To facilitate a robust means of communication with the resources, an arithmetic circuit is employed to *provide error checking based on data received from the DMA* and based on a polynomial equation. This arithmetic circuit is capable of being programmed with a plurality of different polynomial equations utilized to generate error-checking values of different types. Wolf does not teach or suggest such limitations of the subject invention as recited in the subject claim.

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The Court of Appeals for the Federal Circuit (CAFC) holds that "anticipation is established *only if* (1) *all the elements* of an invention, *as stated in a patent claim*, (2) *are identically set forth*, (3) in a single prior art reference." See *Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997) ("Under 35 U.S.C. §102, every limitation of a claim must *identically* appear in a single prior art reference for it to anticipate the claim.") (Emphasis added); *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990) ("For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be *identically* shown in a single reference.' These elements must be *arranged as in the claim under review....*") (Emphasis added) (Citations omitted); *Lindemann Maschinenfabrik GMBH v. American Hoist*, 730 F.2d 1452, 1458 (Fed. Cir. 1984) ("Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*") (Emphasis added); *Connell v. Sears, Roebuck & Co.* 722 F.2d 1542, 1548 (Fed Cir. 1983) ("Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention *arranged as in the claim.* A prior art disclosure that 'almost' meets that standard ... does not 'anticipate.'") (Emphasis added) (Citations omitted). Thus, pursuant 35 U.S.C. §102, a reference must teach each and every element as identically shown, or as arranged in the claim in order to anticipate. In addition, "it is not sufficient that each element be found somewhere in the reference, the elements must be '*arranged as in the claim*'" *Novo Nordisk A/S v. Becton Dickinson and Co.*, 96 F.Supp.2d 309, (S.D.N.Y. 2000) citing *Lindemann* 730 F.2d at 1458 (Emphasis added). Moreover, "absence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

In particular, Wolf does not teach or suggest an arithmetic circuit employed to provide error checking *based on data received from the DMA controller* as recited in the subject claim. In the Office Action dated October 3, 2003, Examiner cites col. 3, lines 24-27 and col. 5, lines 16-26 of Wolf which disclose a Reed-Solomon encoder. Such an encoder employs a polynomial to locate, quantify and extract errors contained in digital signals. However, Wolf does not mention generating an error checking value *based on data received from the DMA controller*. Instead, Wolf merely discloses that the

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polynomial value *could be* changed but fails to disclose how such a change is facilitated. For example, the referenced passage in Wolf is directed to changing a code generator polynomial by varying the value of  $j_0$ . However, there is no reference in Wolf that  $j_0$  is dependent on data received from any source, yet alone *dependent on data received from the DMA controller*, as required in the subject claim.

Furthermore, Examiner cites Wolf col. 8, lines 30-31 to teach a process step wherein data is received from the DMA. However, simply stating that data is received from the DMA is of no consequence when the data received is unrelated to the value of  $j_0$  and how the code generator polynomial value is changed. "It is not sufficient that each element be found somewhere in the reference, the elements must be '*arranged as in the claim.*'" *Novo Nordisk A/S v. Becton Dickinson and Co.*, 96 F.Supp.2d 309, (S.D.N.Y. 2000) citing *Lindemann* 730 F.2d at 1458 (Emphasis added). Moreover, "absence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

Thus, pursuant to 35 U.S.C. §102, Wolf does not identically set forth all elements of the subject claim and therefore does not anticipate the subject claim. Accordingly, it is submitted that Wolf does not anticipate or suggest applicants' invention as recited in independent claim 1 and this rejection should be withdrawn.

## **II. Rejection of Claims 3-10 Under 35 U.S.C. §103(a)**

Claims 3-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wolf (US 6,385,751 B1) in view of McSpadden (US 4,216,540). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Wolf and McSpadden individually and in combination, do not teach or suggest all limitations of the subject claims. For reasons provided *supra*, Wolf does not teach or suggest the limitations of independent claim 1 and McSpadden does not make up for the aforementioned deficiencies. Accordingly, this rejection should be withdrawn.

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**III. Conclusion**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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